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ROBERT E. KREBS
THELEN REID & PRIEST LLP
P.O. Box 640640
SAN JOSE, CA 95164-0640

EXAMINER	
PHAM, TUAN	

ART UNIT	PAPER NUMBER
2618	

DATE MAILED: 11/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/988,543	VANDERHELM, RONALD J.	
	Examiner	Art Unit	
	TUAN A. PHAM	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 July 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 07/17/2006 have been fully considered but they are not persuasive.

In response to applicant's remark on pages 11-12, Applicant argues that the examiner has fails to combine Hirasawa and Mathe, and applicant also alleges that examiner fails to establish a prima facie case.

In response to applicant's arguments as stated above, the Examiner respectfully disagrees with the Applicant's argument. It appears applicant is attacking individual merits of Hirasawa and Mathe , and concludes that there is no impetus to combine them. However, the 103 rejection is in consideration of Hirasawa and Mathe as a whole. One cannot show non-obviousness by attacking references individually. In re Keller, 208 USPQ 871 (CCPA 1981). The test for obviousness is not whether features of one reference may be bodily incorporated into the other to produce claimed subject matter but simply what the combination of references makes obvious to one of ordinary skill in pertinent art. In re Bozek, (CCPA) 163 USPQ 545. The question in a rejection for obviousness on a combination of references is what secondary reference would teach one skilled in the art and not whether its structure could be bodily substituted in basic reference structure. In re Richman, 165 USPQ 509 (CCPA 1970). In this regard, the intent of Mathe as a secondary teaching is not to combine its structural features into Hirasawa, but rather to use the teaching of Mathe including a downconverter has more

active stage become non-linear in the receiver. Furthermore, a prima facie case of obviousness is established when the teaching of the prior art would appear to have suggested the claimed subject matter to a person of ordinary skill in the art. In re Rinehart, 189 USPQ 143 (CCPA 1976). In this case, Hirasawa teaches all the subject matter of claimed limitations in this pending application, except the downconverter having one or more active stages configured such that signal amplitude at which the one or more active stage become non-linear are increased relative to corresponding active stages in the receiver. Hirasawa illustrates in figure 1, disclosed the booster for the cellular phone, which is provided better signal for the cellular when use in the car. On the other hand, Mathe teaches a downconverter in the receiver for downconverting the RF signal into IF signal. Since both references teach the receiver for processing the RF signal, they are indeed in the same field of endeavor or analogous arts. Therefore, there is an existing a strong prima facie case of obviousness under 35 U.S.C 103, and proper to combine Hirasawa and Mathe.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation to

do so found in order to provide a high dynamic range, and low DC offset as suggested by Mathe at col.3, ln.42-45.

For the reasons above, the 103 rejections as set forth in the last Office Action stand.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-6, 9, 11-15, 21-29, and 33-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirasawa et al. (U.S. Patent No.: 5,369,803, hereinafter, "Hirasawa") in view of Mathe (U.S. Patent No.: 6,243,430).

Regarding claim 1, Hirasawa teaches an enhancer (read on power amplifier unit) for increasing the dynamic range of a receiver that detects a signal (the power amplifier is boosting the signal for the receiver), the receiver having an antenna port for coupling to an antenna through which an RF signal including a carrier frequency is received (see figure 1, receiver 7, antenna port 702-706 coupling with connector 5 and cable 4, col.5, ln.35-60), the enhancer comprising:

a downconverter for downconverting the received signal to an intermediate frequency of the receiver (see figure 1, mixer 35, IF signal S6, col.5, ln.15-24, col.6, ln.10-13); and

a coupler attachable to the antenna port for sending the downconverted signal to the receiver by way of he antenna port; wherein the downconverter and the enhancer increase the dynamic range of the receiver (see figure 1, cable 4, antenna port 702-706, send IF signal S6 to receiver 7, the power amplifier unit 3 is boosting the signal to increase the dynamic range for receiver 7 when the booster is on, col.3, ln.40-58, col.5, ln.15-24, col.6, ln.10-13).

It should be noticed that Hirasawa fails to teach the downconverter having one or more active stages configured such that signal amplitude at which the one or more active stage become non-linear are increased relative to corresponding active stages in the receiver. However, Mathe teaches such features (see col.2, ln.20-39, the amplifier and mixer are increased the amplitude as non-linear in the active stages).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Mathe into view of Hirasawa in order to provide a high dynamic range, and low DC offset as suggested by Mathe at col.3, ln.42-45.

Regarding claim 2, Mathe further teaches the enhancer further including at least one filter operative to exclude strong signals (see figure 2, band pass filter 118, col.1, ln.65-67).

Regarding claim 3, Hirasawa further teaches the enhancer wherein the downconverter comprises: a local oscillator operative to generate a local oscillator signal; and a mixer operative to mix the received signal with the local oscillator signal in

order to downconvert the received signal (see figure 1, LO signal S5, mixer 35, receive signal S4, IF signal S6, col.6, ln.1-13).

Regarding claim 4, Hirasawa further teaches the enhancer wherein the receiver comprises an antenna port and the coupler is operative to couple the downconverted signal to the antenna port of the receiver (see figure 1, cable 4, antenna port 702-706, col.5, ln.35-60).

Regarding claim 5, Hirasawa further teaches the enhancer wherein the mixer is operative to downconvert the received signal to the intermediate frequency of the receiver (see figure 1, mixer 35, receive signal S4, IF signal S6, col.6, ln.1-13).

Regarding claim 6, Hirasawa further teaches the enhancer wherein the local oscillator is synchronized to the receiver (see col.4, ln.65-68, col.5, ln.15-24).

Regarding claim 9, Hirasawa further teaches the enhancer wherein the coupler is a coaxial line operative to couple the enhancer to the receiver (see figure 1, cable 4, col.5, ln.25-30).

Regarding claim 11, Hirasawa teaches an add-on enhancer (read on power amplifier unit) to increase the dynamic range of a receiver having an antenna port for coupling to an antenna through which an RF signal including a carrier frequency is received (see figure 1, receiver 7, antenna port 702-706 coupling with connector 5 and cable 4, col.5, ln.35-60, the power amplifier is boosting the signal for the receiver, the RF signal is included carrier signal for carrying the data), the enhancer comprising:

a downconverter (read on mixer) for downconverting a received signal to an intermediate frequency of the receiver (see figure 1, mixer 35, IF signal S6, col.5, ln.15-24, col.6, ln.10-13); and

an attachable coupling line for sending signals from the downconverter to the receiver by way of the antenna port; wherein the dynamic range (i.e., frequency band) of the enhancer is greater than the dynamic range of the receiver (see figure 1, cable 4, antenna port 702-706, send IF signal S6 to receiver 7, col.2, ln.1-15, col.3, ln.40-58, col.5, ln.15-24, col.6, ln.10-13, the power amplifier unit received the frequency band at 800 MHz and downconverted to the IF signal at frequency band 90 MHz, then IF signal is feeding to the receiver. Therefore, the power amplifier unit has a frequency band greater than the frequency band of receiver).

It should be noticed that Hirasawa fails to teach the downconverter having one or more active stages configured such that signal amplitude at which the one or more active stage become non-linear are increased relative to corresponding active stages in the receiver. However, Mathe teaches such features (see col.2, ln.20-39, the amplifier and mixer are increased the amplitude as non-linear in the active stages).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Mathe into view of Hirasawa in order to provide a high dynamic range, and low DC offset as suggested by Mathe at col.3, ln.42-45.

Regarding claim 12, Hirasawa further teaches the enhancer further including at least one filter operative to exclude strong signals (see figure 2, band pass filter 1226, col.6, ln.25-45).

Regarding claim 13, Hirasawa further teaches the add-on enhancer wherein the downconverter comprises a mixer and a local oscillator operative to downconvert the received signal to the intermediate frequency of the receiver (see figure 1, mixer 35, LO signal S5, received signal S4, IF signal S6, col.6, ln.1-14).

Regarding claim 14, Hirasawa further teaches the enhancer wherein the local oscillator is synchronized to the receiver (see col.4, ln.65-68, col.5, ln.15-24).

Regarding claim 15, Hirasawa further teaches the add-on enhancer further comprising a control signal from the receiver to the local oscillator in order to synchronize the local oscillator to the receiver (see figure 1, LO signal S5, SYNTH 76, controller 81, col.4, ln.5-54).

Regarding claim 21, Hirasawa teaches a method of increasing the dynamic range (i.e., frequency band) of a receiver having an antenna port with an enhancer, the antenna port being couple to an antenna for receiving an RF signal including a carrier frequency, (see figure 1, receiver 7, antenna port 702-706 coupling with connector 5 and cable 4, col.5, ln.35-60, the power amplifier is boosting the signal for the receiver, the RF signal is included carrier signal for carrying the data) the method comprising the steps of:

a) receiving a signal with an antenna of the enhancer (see figure 1, antenna 1, power amplifier 3);

b) downconverting the received signal to an intermediate frequency of the receiver (see figure 1, mixer 35, IF signal S6, col.5, ln.15-24, col.6, ln.10-13); and

c) attachably coupling the downconverted signal to the antenna port of the receiver (see figure 1, cable 4, antenna port 702-706, send IF signal S6 to receiver 7, col.2, ln.1-15, col.3, ln.40-58, col.5, ln.15-24, col.6, ln.10-13).

It should be noticed that Hirasawa fails to teach the downconverter having one or more active stages configured such that signal amplitude at which the one or more active stage become non-linear are increased relative to corresponding active stages in the receiver. However, Mathe teaches such features (see col.2, ln.20-39, the amplifier and mixer are increased the amplitude as non-linear in the active stages).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Mathe into view of Hirasawa in order to provide a high dynamic range, and low DC offset as suggested by Mathe at col.3, ln.42-45.

Regarding claim 22, Hirasawa further teaches the method of enhancer further including at least one filter operative to exclude strong signals (see figure 2, band pass filter 1226, col.6, ln.25-45).

Regarding claim 23, Hirasawa further teaches the method comprises mixing the signal in order to downconvert the signal (see figure 1, mixer 35, received signal S4, LO signal S5, IF signal S6, col.6, ln.1-14).

Regarding claim 24, Hirasawa further teaches the method comprises mixing the signal with a local oscillator signal (see figure 1, mixer 35, received signal S4, LO signal S5, IF signal S6, col.6, ln.1-14).

Regarding claim 25, Hirasawa further teaches the method further comprising the step of synchronizing the local oscillator signal with the receiver (see col.4, ln.65-68, col.5, ln.15-24).

Regarding claim 26, Hirasawa further teaches the method further comprising the step of synchronizing the local oscillator signal via a control signal from the receiver (see figure 1, LO signal S5, SYNTH 76, controller 81, col.4, ln.5-54).

Regarding claim 27, Hirasawa further teaches the method comprises coupling the downconverted signal with a coaxial line in electrical communication with the antenna port of the receiver (see figure 1, cable 4, antenna port 702-706).

Regarding claim 28, Hirasawa teaches an enhancer (read on power amplifier unit)) for increasing the dynamic range (i.e., frequency band) of a receiver having an antenna port for coupling to an antenna through which an RF signal including a carrier frequency is received, the enhancer comprising (see figure 1, receiver 7, antenna port 702-706 coupling with connector 5 and cable 4, col.5, ln.35-60, the power amplifier is boosting the signal for the receiver, the RF signal is included carrier signal for carrying the data):

downconversion (i.e., mixer) means for downconverting a signal detected by an antenna of the enhancer (see figure 1, mixer 35, IF signal S6, col.5, ln.15-24, col.6, ln.10-13); and

coupling means for attachably coupling the enhancer to the antenna port of the receiver and sending the downconverted received signal to the receiver (see figure 1, cable 4,. antenna port 702-706, send IF signal S6 to receiver 7, col.2, ln.1-15, col.3, ln.40-58, col.5, ln.15-24, col.6, ln.10-13).

It should be noticed that Hirasawa fails to teach the downconverter having one or more active stages configured such that signal amplitude at which the one or more active stage become non-linear are increased relative to corresponding active stages in the receiver. However, Mathe teaches such features (see col.2, ln.20-39, the amplifier and mixer are increased the amplitude as non-linear in the active stages).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Mathe into view of Hirasawa in order to provide a high dynamic range, and low DC offset as suggested by Mathe at col.3, ln.42-45.

Regarding claim 29, Hirasawa teaches an enhancer (read on power amplifier unit) for increasing the dynamic range (e.i.,frequency band) of a receiver having an antenna port for coupling to an antenna through which an RF signal including a carrier frequency is received, the enhancer comprising (see figure 1, receiver 7, antenna port 702-706 coupling with connector 5 and cable 4, col.5, ln.35-60, the power amplifier is boosting the signal for the receiver, the RF signal is included carrier signal for carrying the data):

an antenna for receiving the a signal (see figure 1, antenna 1, power amplifier 3);

a mixer in electrical communication with the antenna and a local oscillator signal; the mixer being operative to downconvert the received signal to an intermediate frequency of the receiver (see figure 1, mixer 35, IF signal S6, col.5, ln.15-24, col.6, ln.10-13); and

a coupler in electrical communication with the mixer and the antenna port of the receiver, the coupler being operative to transmit the downconverted received signal to the receiver (see figure 1, cable 4, antenna port 702-706, send IF signal S6 to receiver 7, col.2, ln.1-15, col.3, ln.40-58, col.5, ln.15-24, col.6, ln.10-13).

It should be noticed that Hirasawa fails to teach the downconverter having one or more active stages configured such that signal amplitude at which the one or more active stage become non-linear are increased relative to corresponding active stages in the receiver. However, Mathe teaches such features (see col.2, ln.20-39, the amplifier and mixer are increased the amplitude as non-linear in the active stages).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Mathe into view of Hirasawa in order to provide a high dynamic range, and low DC offset as suggested by Mathe at col.3, ln.42-45.

Regarding claims 33-37, Hirasawa further teaches apparatus and method wherein the downconverted signal is applied to the receiver by way of IF blowthrough without conversion to a carrier frequency (see figure 1, IF signal S6 is applied to receiver 7, col.6, ln.1-14).

4. Claims 7 and 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Hirasawa et al. (U.S. Patent No.: 5,369,803, hereinafter, "Hirasawa") in view of Mathe (U.S. Patent No.: 6,243,430) as applied to claims 1 and 11 above, and further in view of Kerth et al. (Pub. No.:US 2005/0003762, hereinafter, "Kerth").

Regarding claims 7 and 16, Hirasawa and Mathe, in combination, fails to teaches a phase lock loop electrically connected to the local oscillator and the receiver in order to synchronize the local oscillator. However, Kerth teaches such features (see figure 8, PLL 840, RF LO signal 454).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Kerth into view of Hirasawa and Mathe in order to timing information transfer within the data stream.

5. Claims 10, 17-20 and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirasawa et al. (U.S. Patent No.: 5,369,803, hereinafter, "Hirasawa") in view of Mathe (U.S. Patent No.: 6,243,430) as applied to claims 1, 11, and 29 above, and further in view of Takeda (U.S. Patent No.: 5,524,044).

Regarding claims 10 and 17, Hirasawa and Mathe, in combination, fails to teaches an antenna for detecting the received signal, and a duplexer electrically connected to the coupler and the antenna, the duplexer operative to transmit and receive signals to and from the coupler. However, Takeda teaches such features (see figure 2, antenna 25, duplexer 44).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Takeda into view of Hirasawa and Mathe in order to combines the two slow signal into one high signal stream.

Regarding claim 18, Hirasawa further teaches the add-on enhancer further comprising an antenna in electrical communication with the downconverter and operative to detect the received signal (see figure 1, antenna 1, mixer 35, received signal S4).

Regarding claim 19, Takeda further teaches the add-on enhancer further comprising a duplexer in electrical communication with the antenna and the diplexer, the duplexer being operative to transmit and receive signals with the antenna (see figure 2, duplexer 44, 45, antenna 25).

Regarding claim 20, Takeda further teaches the add-on enhancer wherein the diplexer and the duplexer are operative to send and receive signals between the antenna of the add-on enhancer and the antenna port of the receiver (see figure 2, duplexer 44, 45, antenna 25, receiver 21).

Regarding claim 30, Hirasawa further teaches the the mixer, and Takeda further teaches a duplexer in electrical communication with the antenna; and a diplexer in electrical communication with the duplexer, and the antenna port of the receiver; wherein the duplexer and the diplexer are operative to send a receive signal between the antenna and the antenna port of the receiver (see figure 2, duplexer 44, 45).

Regarding claim 31, Hirasawa further teaches the enhancer further comprising a local oscillator in electrical communication with the mixer, the local oscillator being operative to provide a local oscillator signal to the mixer to be downconverted with the received signal (see figure 1, LO signal S5, mixer 35, received signal S4, col.6, ln.1-14).

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirasawa et al. (U.S. Patent No.: 5,369,803, hereinafter, "Hirasawa") in view of Mathe (U.S. Patent No.: 6,243,430) as applied to claim 1 above, further in view of Kerth et al. (Pub. No.:US 2005/0003762, hereinafter, "Kerth"), and further in view of Russo (U.S. Patent No.: 6,301,297).

Regarding claim 8, Hirasawa, Mathe, and Kerth, in combination, fails to teach a serial buffer electrically connected to the phase lock loop and the receiver in order to synchronize the local oscillator. However, Russo teaches such features (see figure 1, serial buffer 26, phase lock loop 22, oscillator 18, col.3, ln.10-60).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Russo, into view of Hirasawa, Mathe, and Kerth in order to save the power for a device.

7. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirasawa et al. (U.S. Patent No.: 5,369,803, hereinafter, "Hirasawa") in view of Mathe (U.S. Patent No.: 6,243,430) as applied to claim 29 above, further in view of

Takeda (U.S. Patent No.: 5,524,044) and further in view of Kerth et al. (Pub. No.:US 2005/0003762, hereinafter, "Kerth").

Regarding claim 32, Hirasawa, Mathe, and Takeda, in combination, fails to teach a phase lock loop electrically connected to the local oscillator and the receiver in order to synchronize the local oscillator. However, Kerth teaches such features (see figure 8, PLL 840, RF LO signal 454).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Kerth into view of Hirasawa, Mathe, and Takeda, in order to timing information transfer within the data stream.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A. Pham whose telephone number is (571) 272-8097. The examiner can normally be reached on Monday through Friday, 8:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Anderson can be reached on (571) 272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have question on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit 2618
October 28, 2006
Examiner

Tuan Pham

Supervisory Patent Examiner
Technology Center 2600

Matthew Anderson